

Amendment and Response Under 37 C.F.R. 1.116

Applicant: Michael Bauer et al.

Serial No.: 10/789,033

Filed: February 27, 2004

Docket No.: I431.103.101/FIN 423 US

Title: ELECTRONIC COMPONENT AND SEMICONDUCTOR WAFER, AND METHOD FOR PRODUCING THE SAME

REMARKS

The following remarks are made in response to the Final Office Action mailed January 8, 2007. Claims 1-5 and 15-17 have been cancelled. With this Response, claims 6, 11 and 12 have been amended. Claims 6-14 and 18-20 remain pending in the application and are presented for reconsideration and allowance.

Election/Restriction

Section 2 of the Office Action characterized claims 18-20 as being directed to an invention that is independent or distinct from the invention originally claimed, referencing 37 CFR 1.142(b) and MPEP 821.03. Applicants respectfully submit the restriction requirement and the withdrawal of claims 18-20 is improper and thus request reconsideration and allowance of these claims.

37 CFR 1.142(b) simply states that claims to a non-elected invention, if not canceled, are nevertheless withdrawn from further consideration. MPEP 821.03 is directed to “claims for different invention added after an office action.” As such, MPEP 821.03 refers to claims directed to an invention other than previously claimed.” The Office Action states that the subject matter of claims 18-20 is distinct from the originally claimed invention because, “The semiconductor assembly comprising, inter alia, an insulating circuit substrate comprising lines running parallel on its top side providing a bus line as recited is patentably distinct from the semiconductor wafer comprising integrated circuits arranged in rows and columns on the wafers top side.”

However, claims similar in scope to claims 18-20 were previously examined in addition to the claims reciting “the semiconductor wafer comprising integrated circuits arranged in rows and columns on the wafers top side.” For instance, previously examined claims 11-15 include, among other things, a substrate having a top side and a conductor track structure.” None of previously examined claims 6-15 specifically recite a “semiconductor wafer comprising integrated circuits arranged in rows and columns on the wafers top side.”

Applicants therefore respectfully request reconsideration and allowance of claims 18-20.

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Drawings

Section 3 of the Office Action objected to the drawings under 37 CFR 1.83(a) specifically with regard to features recited in claims 4 and 6. Claim 4 has been cancelled. Claim 6 recites “the rear sides of the semiconductor chips are oriented virtually perpendicular to a top side of the circuit substrate.” This is illustrated, for example, in Figure 9, which shows rear sides of chips 6 oriented perpendicularly to the top surface 25 of the insulated substrate 35.

Applicants therefore respectfully request the objections to the drawings be withdrawn.

Specification

Section 4 of the Office Action objected to the specification with regard to claim 6. Claim 6 has been amended to provide antecedent basis for the *circuit substrate*. The objection to the specification is thus believed to be overcome.

Claim Rejections under 35 U.S.C. § 112

Sections 5-6 of the Office Action rejected claim 4 under 35 U.S.C. § 112, first paragraph. Claim 4 has been cancelled, rendering this rejection moot.

Sections 7-8 of the Office Action rejected claims 4 and 6-14 under 35 U.S.C. § 112, second paragraph. Claim 4 has been cancelled. Claim 6 has been amended to correct an informal error, changing “semiconductor wafers” to – semiconductor chips – .

In view of the above, all of the rejections under 35 U.S.C. § 112 are believed to be overcome.

Claim Rejections under 35 U.S.C. § 102

Sections 9-11 rejected claims 4 and 5 under 35 U.S.C. § 102(b). Claims 4 and 5 have been cancelled, rendering their rejections moot.

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Claim Rejections under 35 U.S.C. § 103

The Office Action rejected claims 6-14 under 35 U.S.C. § 103 as allegedly being unpatentable over Nakajima JP 2002-299372 (“Nakajima”) in view of Koike et al. WO 03/012868 (equivalent to U.S. Patent No. 7,071,028, collectively “Koike”). Applicants respectfully traverse these rejections.

Claim 6 has been amended to correct informalities, more specifically, to recite “rear sides of the semiconductor *chips*”; and also to recite these chips being “oriented virtually perpendicular to a top side of the circuit substrate.” The recitation of the chips being stacked one on the other has also been deleted.

Claim 6 thus includes semiconductor chips oriented such that the rear sides of the semiconductor chips are oriented virtually perpendicular to a top side of the insulated substrate. The Office Action admits that Nakajima fails to disclose additional chips, but refers to Figures 6, 23 and 32 of Koike, stating Koike discloses chips “on an insulated substrate 18 such that the rear sides of the semiconductor wafers are oriented virtually perpendicular a top side of the substrate.”

Figure 32 of Koike is reproduced below.

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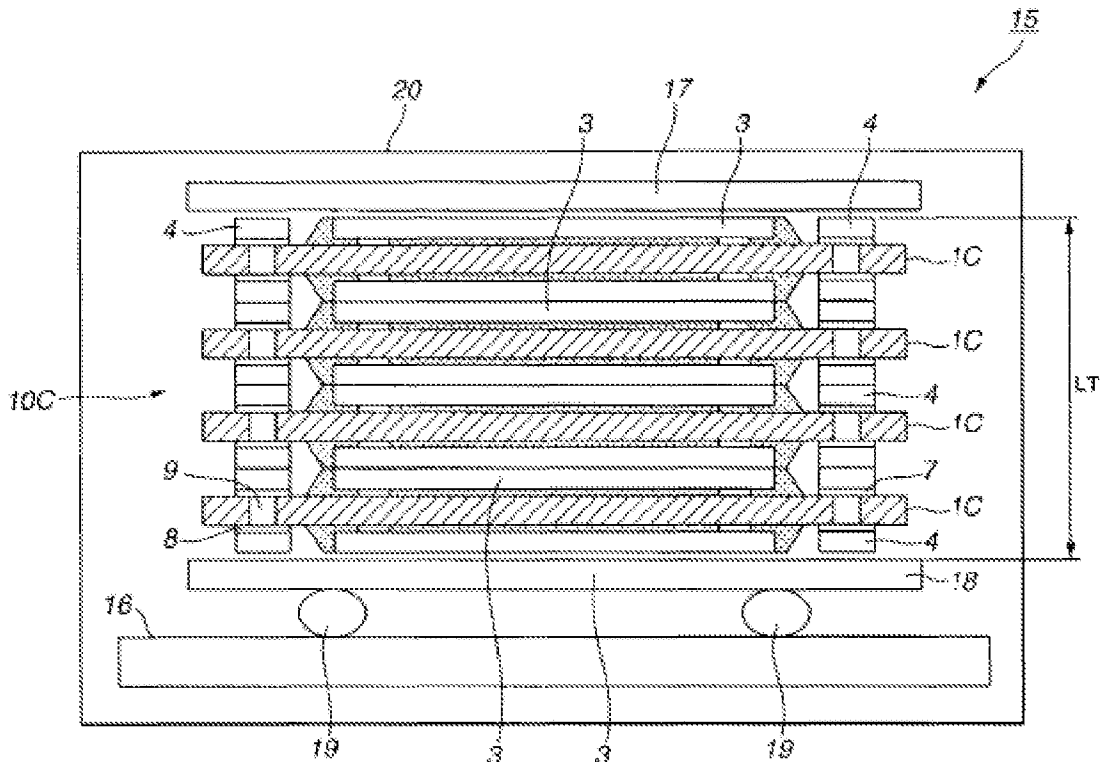


FIG.32

Referring to Figure 32, Koike discloses a lower protective substrate 18. See col. 18, ll. 16-18. However, Figure 32 of Koike clearly shows the rear sides of the semiconductor chips 3 being oriented parallel to the top side of the substrate 18.

As such, Applicants respectfully submit claim 6, and all of the claims dependent on claim 6, are patentable over the combination of Nakajima and Koike.

CONCLUSION

As evidenced by the amendments and remarks presented above, Applicants have made a genuine effort to respond to each concern raised in the Office Action. The application is believed to be in condition for allowance, and as such, Applicants respectfully submit the amendments presented herein are proper for entry under 37 CFR 1.116. In the alternative,

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Applicants request withdrawal of the finality of the Office Action to allow response to any further concerns the Examiner may have.

No fees are required under 37 C.F.R. 1.16(b)(c). However, if such fees are required, the Patent Office is hereby authorized to charge Deposit Account No. 50-0471.

The Examiner is invited to contact the Applicant's representative at the below-listed telephone numbers to facilitate prosecution of this application.

Any inquiry regarding this Amendment and Response should be directed to Mark L. Gleason at Telephone No. (612) 767-2503, Facsimile No. (612) 573-2005. In addition, all correspondence should continue to be directed to the following address:

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Respectfully submitted,

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